

NEW RECORD OF SPIDER *Poltys illepidus* (ARANEAE : ARANEDAE) FROM INDIA

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ABSTRACT

The genus *Poltys* was erected by C. L. Koch, 1843 with a species *illepidus*. At present 43 species are known from this genus worldwide. The taxonomic description of spider *Poltys illepidus* C. L. Koch, 1843 * (Araneae : Araneidae) is reported for the first time from India from Vidarbha, Maharashtra, India. Only female is described in the present paper.

Keywords: Spider, India, *Poltys illepidus*, Taxonomy

INTRODUCTION

The species *Poltys illepidus* was first described by Koch in 1843. Later on many arachnologists like Simon (1895); Pocock (1900); Chrysanthus (1961); Davies (1988); Chikuni (1989); Barrion & Litsinger (1995); Smith (2005, 2006); Tanikawa (2007, 2009) also reported this species from various parts of the world. I have recorded this species for the first time in India from the orange fields of Vidarbha, Maharashtra, India in huge number during night and described in the present paper.

Distribution: Thailand, Australia, Lord Howe Is., Norfolk Is., Japan, West New Guinea, Philippines, India

MATERIALS AND METHODS

Spiders were collected by hand from their webs. After collection and taking photographs, spiders were preserved in 70% ethanol. Female genital organ (epigyne) was dissected and treated with 10% KOH for detail study. All measurements are in millimeters. Abbreviations used in the text: AME- anterior median eyes, ALE- anterior lateral eyes, PME- posterior median eyes, PLE- posterior lateral eyes, LE- lateral eyes, MOQ- median ocular quadrangle.

Deposition of material: Collected spider specimen (five) are deposited at Arachnology Museum, Forest Training Institute, Chikhaldara, Maharashtra-India.

OBSERVATIONS AND RESULTS

Poltys illepidus C. L. Koch, 1843 *

(Figures 1 to 4)

Poltys illepidus C. L. Koch, 1843: 97, f. 821 ; *Poltys moluccum* Thorell, 1878: 28; *Poltys coronatus* Keyserling, 1886: 128, pl. 10, f. 2 ; *Poltys keyserlingi* Keyserling, 1886: 129, pl. 10, f. 3 ; *Poltys illepidus* Simon, 1895: 892; *Poltys multituberculatus* Rainbow, 1898: 82, pl. 18, f. 2; *Poltys illepidus* Pocock, 1900: 236; *Poltys multituberculatus* Rainbow, 1916: 118, pl. 22, f. 43; *Poltys penicillatus* Rainbow, 1920: 249, pl. 29, f. 57; *Poltys illepidus* Chrysanthus, 1961: 211, f. 70-73; *Poltys illepidus* Davies, 1988: 316, f. 34; *Poltys illepidus* Chikuni, 1989: 81, f. 55 ; *Poltys illepidus* Barrion & Litsinger, 1995: 579, f. 359a-h, 360a-f ; *Poltys illepidus*

Smith, 2005: 469, f. 1-2, 7-12; *Poltys illepidus* Smith, 2006: 55, f. 16-17, 25-26, 33-41, 46-51, 56-63, 67-69 ; *Poltys illepidus* Tanikawa, 2007: 92, f. 295-298, 757-759; *Poltys illepidus* Tanikawa, 2009: 463, f. 328-330

Total length 17.85 mm, cephalothorax 5.91 mm long, 4.68 mm wide, abdomen 11.93 mm long, 9.06 mm wide, sternum 2.26 mm long, 2.42 mm wide.

Cephalothorax blackish brown, pear-shaped in dorsal view, double domed in lateral view, slightly longer than wide, constricted anteriorly, widest between coxae II and III, with a prominent eye tubercle anteriorly. Cephalic region from anterior to posterior end medially covered with a broad patch of fawn color, fur like smooth and short hairs. Thoracic region glabrous, slightly higher than the cephalic region with deep, arrow like fovea. MOQ wider than long, wider anteriorly than posteriorly. AME slightly larger than PME, ALE widely separated from each other, ALE smaller, situated nearer to AME and on to the same eye tubercle, covered with a thick bunch of fawn color hairs, PLE situated apart from the ALE and PME, placed at the sides of cephalic region. Sternum cordate, anterior end concave, posterior end rounded between coxae IV, covered with hairs, provided with protuberances opposing coxae and lateral margins provided with tubercles opposing coxae II, III and IV. Labium wider than long, rebordered, blackish brown with apical 1/3rd pale in color. Maxillae broad, robust, blackish brown except pale promarginal edge fringed with scopulae and serrula. Chelicerae blackish brown, robust, with distinct boss, provided with four promarginal teeth, third one largest and three retromarginal teeth, all subequal in size. Fang quite long, well developed. Legs moderately long and strong, with blackish brown femur and patellae, yellow with black middle and distal band on tibiae, metatarsi and tarsi.

Leg segments covered with hairs. Femora I and II broader than III and IV. Femora I-IV bear three to four prolateral spines and distinct dorso-proximal setae present on femora II, III and IV. Femur II with ventro-proximal tubercle. Tibiae I and II curved, with six pairs of ventral spines in two rows. Tibiae and metatarsi I and II flat bears short and long prolateral numerous spines and short equally spaced spines. Tarsi along with three claws bear accessory claws. Leg formula 1243. Palp yellowish black covered with fawn color hairs, tarsus bigger than femur, tarsi and tibiae spinous.

Abdomen broad, brownish, anteriorly upward, overhanging the cephalothorax, provided with many small and large irregular tubercles. Dorsum of abdomen with many black spots and number of small and big sigillas scattered throughout the abdomen, anterior end with median roughly triangular, conical tubercle that biforked at the base, besides it, two pairs of small equally placed conical tubercles, also provided with a big prominent shoulder hump with three upward prolongations, between shoulder hump an inverted V- shaped mark extends up to the base of median conical tubercle, guarded anteriorly by a medially with a black patch that reach up to the posterior end and also a big pair of sigilla guarded by a U-shaped black outline. Posterior end with three folds of skin. Lateral margins wavy provided with many tubercles covered with stubby hairs. Venter of abdomen brownish, covered with short hairs, book lung covers yellow, pedicel situated in the posterior half of abdomen that encircled along with epigynum by the black, broad outline.

Epigynum fan shaped, broad and short, trilobed. Median distal margin little protruded out, tongue like with median concavity and with a flange anteriorly. Copulatory opening underneath the epigynum, lateral plates semicircular, spermathecae oval and small.



Figure 1: Female, dorsal view



Figure 2: Eyes



Figure 3: Female epigynum, ventral view



Figure 4: Female epigynum, dorsal view

REFERENCES

- Barrion, A. T. and J. A. Litsinger. 1995. *Riceland Spiders of South and Southeast Asia*. CAB International, Wallingford, UK, xix + 700 pp.
- Chikuni, Y. 1989. *Pictorial Encyclopedia of Spiders in Japan*. Kaisei-sha Publishing Co., Tokyo, 310 pp.
- Chrysanthus, P. 1961. Spiders from south New Guinea IV. *Nova Guinea (N.S.)*10(Zool.), 195-214.
- Davies, V. T. 1988. An illustrated guide to the genera of orb-weaving spiders in Australia. *Memoirs of the Queensland Museum*, 25: 273-332.
- Doleschall, L. 1859. Tweede Bijdrage tot de Kenntis der Arachniden van den Indischen Archipel. *Acta Societatis Scientiarum Indica-Neerlandica*, 5: 1-60.
- Keyserling, E. 1886. *Die Arachniden Australiens*. Nürnberg, 2, 87-152.
- Koch, C. L. 1843. *Die Arachniden*. Nürnberg, Zehnter Band, pp. 37-142.
- Pocock, R. I. 1900. The fauna of British India, including Ceylon and Burma. Arachnida. London, pp. 1-279.
- Rainbow, W. J. 1898. Description of a new araneiad [sic]. *Records of the Australian Museum*, 3(4): 82-83.
- Rainbow, W. J. 1916. Arachnida from northern Queensland. *Records of the Australian Museum*, 11: 33-64, 79-119.

- Rainbow, W. J. 1920. Arachnida from Lord Howe and Norfolk Islands. *Records of the South Australian Museum*, 1: 229-272.
- Simon, E. 1895. *Histoire naturelle des araignées*. Paris 1, 761-1084.
- Smith, H. M. 2005. A preliminary study of the relationships of taxa included in the tribe Poltyini (Araneae, Araneidae). *Journal of Arachnology*, 33: 468-481.
- Smith, H. M. 2006. A revision of the genus *Poltys* in Australasia (Araneae: Araneidae). *Records of the Australian Museum*, 58: 43-96.
- Tanikawa, A. 2007. An identification guide to the Japanese spiders of the families Araneidae, Nephilidae and Tetragnathidae. *Arachnological Society of Japan*, 121 pp.
- Tanikawa, A. 2009. Hersiliidae, Nephilidae, Tetragnathidae, Araneidae. In: Ono, H. (ed.) *The Spiders of Japan with keys to the families and genera and illustrations of the species*. Tokai University Press, Kanagawa, pp. 149, 403-463.
- Thorell, T. 1878. Studi sui ragni Malesi e Papuani. II. Ragni di Amboina raccolti Prof. O. Beccari. *Annali del Museo Civico di Storia Naturale di Genova*, 13:1-317.
- World Spider Catalog. 2015. World Spider Catalog. Natural History Museum Bern, online at <http://wsc.nmbe.ch>, version 16, accessed on 13/03/2015.